

Endangered Species Act Species

There is a total of 2 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

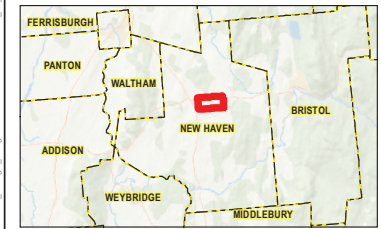
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1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

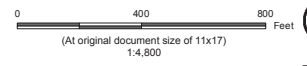
NAME	STATUS
Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949	Endangered
Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



- Legend**
- Culvert
 - Study Area
 - Project Site (LOD)
 - Proposed New Haven Operation Facility
 - Tax Parcel and Span
 - 20' Contour Line
 - 100' Contour Line
 - Delineated Ephemeral Stream
 - Delineated Wetland Boundary
 - Delineated Wetland Extends
 - Delineated Wetland 50' Wetland Buffer
 - Delineated Wetland



Project Location
New Haven, VT

Client/Project
VELCO
New Haven Operations Facility

Prepared by KWH on 2019-10-08
TR by EB on 2019-10-08
IR Review by KR on 2019-11-07
195601391

Figure No.
2

Title
Natural Resources Map

Wetland Notes:

- Wetland boundaries delineated in accordance with USACE Wetland Delineation Manual (1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Routine Determination Method (USACE 2012) and in accordance with the Vermont Wetland Rules, Section 3.2 Methodology for Identifying Wetlands, as amended 2017.
- Wetland boundaries were located utilizing a Trimble Geo-XH GeoExplorer 6000 Series Receiver. Expected accuracy of GPS data is within 1 meter of actual position.

Notes

- Coordinate System: NAD 1983 StatePlane Vermont FIPS 4400 Feet
- Data Sources: VELCO, Stantec, VCGI
- Background: 2016-2017 Color Ortho Imagery provided by VCGI web mapping services

Disclaimer: This document has been prepared based on information provided by others as cited in the Notes section. Stantec has not verified the accuracy and/or completeness of this information and shall not be responsible for any errors or omissions which may be incorporated herein as a result. Stantec assumes no responsibility for data supplied in electronic format, and the recipient accepts full responsibility for verifying the accuracy and completeness of the data.

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 Review: 2019-11-01 By: KWH



Photo 1. Representative mowed field, looking south from Vermont Rt. 17, VELCO New Haven Operation Facility, August 9, 2018, Stantec.



Photo 2. Typical tree hedge row looking east towards the Study Area edge, VELCO New Haven Operation Facility, August 9, 2018, Stantec. Note potential suitable snag outline in red.



Photo 3. Access road to Study Area and adjacent substation from Rt. 17, VELCO New Haven Operation Facility, August 9, 2018, Stantec.



Photo 4. Scrub hedge separating existing laydown yard from mowed field, looking west, VELCO New Haven Operation Facility, August 9, 2018, Stantec.



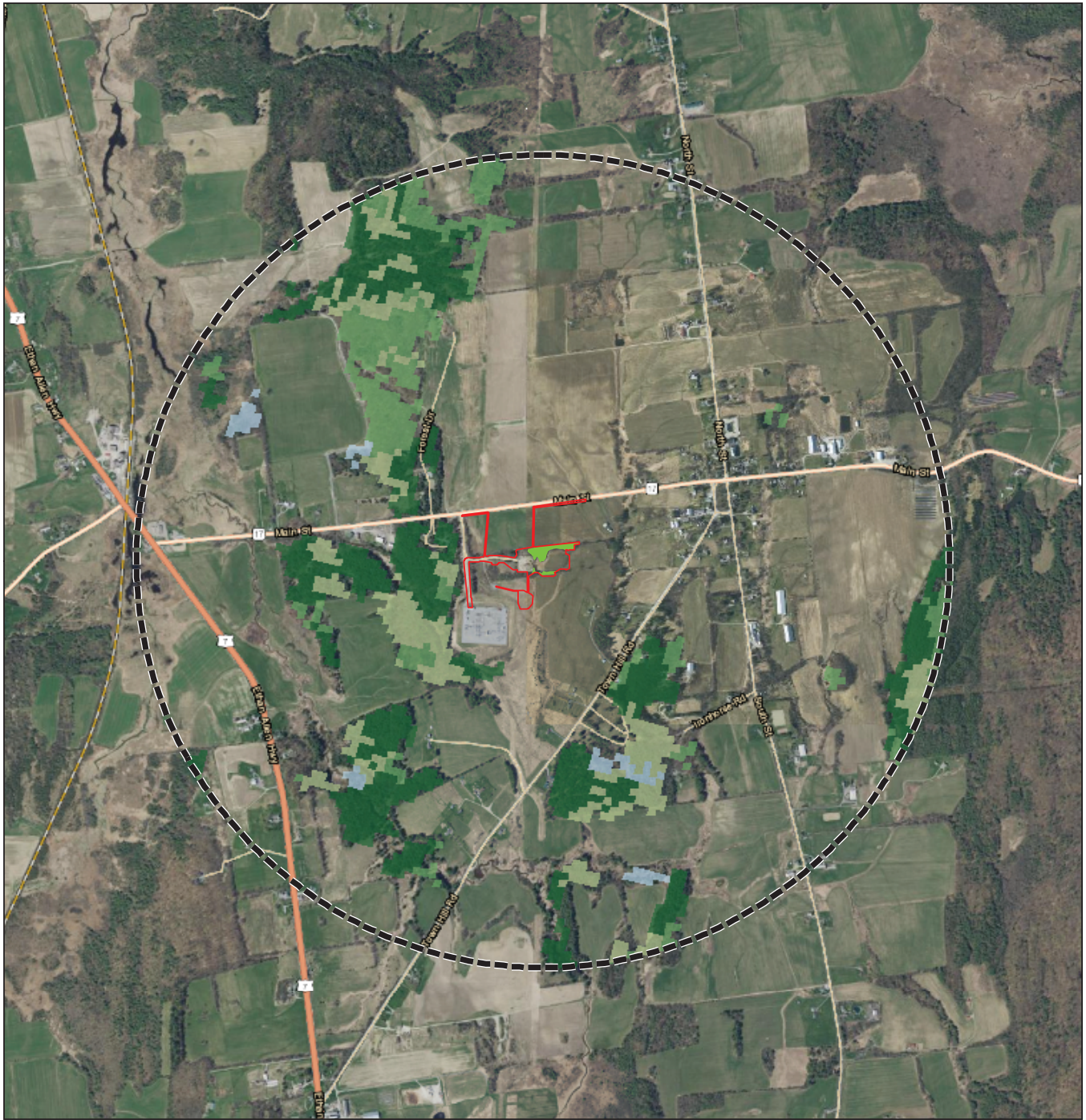
Photo 5. Mowed field looking northeast, photo taken adjacent to wet meadow NH-203, VELCO New Haven Operation Facility, August 9, 2018, Stantec.



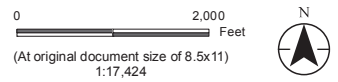
Photo 6. Wetland NH-203, VELCO New Haven Operation Facility, November 1, 2017, Stantec.



Photo 7. Ephemeral stream NH-204, VELCO New Haven Operation Facility, November 1, 2017, Stantec.



- Legend**
- 1 Mile from the New Haven Operations Facility
 - Project Site (LOD)
 - Proposed Forested Area To Be Cleared (1.66 acres)
- 2016 National Land Cover Database
Forested Land Cover Types
- Deciduous Forest
 - Evergreen Forest
 - Mixed Forest
 - Woody Wetlands



Project Location: New Haven, Vermont
Prepared by GAC on 2019-10-22
Reviewed by JLC on 2019-10-23

Client/Project: 195601391

VELCO
New Haven Operations Facility

Figure No.

1

Title
Location Map

Notes

1. Coordinate System: NAD 1983 StatePlane Vermont FIPS 4400 Feet
2. Data Sources: VELCO, Vermont Center for Geographic Information (VCGI)
3. Background: VCGI Color Imagery Web Mapping Service

APPENDIX A: PHASE 1 HABITAT ASSESSMENTS

INDIANA BAT HABITAT ASSESSMENT DATASHEET

Project Name: Proposed VELCO New Haven _____ Date: 8/9/2019 _____
 Township/Range/Section: New Haven, Vermont _____
 Lat Long/UTM/ Zone: 44.121482, -73.163018 - NAD83 _____ Surveyor: Eben Baker _____

Brief Project Description

The proposed Project would serve as VELCO's backup control and data center, consisting of a two-story building and supporting services (wastewater and potable water systems), power transforms, backup emergency generators, chillers, a chain link security fence, driveway, parking lot, and permanent stormwater management system.

Project Area

	Total Acres	Forest Acres		Open Acres
Project	4.2	1.25		2.95
Proposed Tree Removal (ac)	Completely cleared	Partially cleared (will leave trees)	Preserve acres- no clearing	
	1.25	0	0	

Vegetation Cover Types

Pre-Project	Post-Project
Predominantly comprised of open meadow with a few tree rows extending through the center and along the western, southern, and southeastern boundaries. Mid successional forest with trees predominantly < 9 inches DBH	The post-Project vegetation cover type will be largely the same due to tree plantings to occur around the periphery of the Project following completion of construction.

Landscape within 5 mile radius

Flight corridors to other forested areas? Flight corridor connectivity is limited as the Project site occurs within open agricultural (pasture/hay) fields.

Describe Adjacent Properties (e.g. forested, grassland, commercial or residential development, water sources)

The adjacent properties primarily consist of agricultural fields, electrical transmission components (transmission line/substation), residential developments, and Vermont State Route 17.

Proximity to Public Land

What is the distance (mi.) from the project area to forested public lands (e.g., national or state forests, national or state parks, conservation areas, wildlife management areas)?

Green Mountain National Forest land is located approximately 4.6 miles to the west.

APPENDIX A: PHASE 1 HABITAT ASSESSMENTS

Use additional sheets to assess discrete habitat types at multiple sites in a project area

Include a map depicting locations of sample sites if assessing discrete habitats at multiple sites in a project area

A single sheet can be used for multiple sample sites if habitat is the same

Sample Site Description
Sample Site No.(s): 1 New Haven Operations Facility - approximately 4.2-acres including adjacent tree hedgerows

Water Resources at Sample Site				Describe existing condition of water sources: Wet meadow between hedgerow with seasonal high water table - no surface water observed
Stream Type (# and length)	Ephemeral 1-71 ft	Intermittent 1	Perennial 0	
Pools/Ponds (# and size)	0 Open and accessible to bats? NA			
Wetlands (approx. ac.)	Permanent	Seasonal		
		0.5		

Forest Resources at Sample Site				
Closure/Density	Canopy (> 50') 0	Midstory (20-50') 2	Understory (<20') 5	1=1-10%, 2=11-20%, 3=21-40%, 4=41-60%, 5=61-80%, 6=81-100%
Dominant Species of Mature Trees	Red maple, sugar maple, eastern white pine, poplar species (Populus sp.)			
% Trees w/ Exfoliating Bark	0%			
Size Composition of Live Trees (%)	Small (3-8 in) 75	Med (9-15 in) 25	Large (>15 in) 0	
No. of Suitable Snags	1			

Standing dead trees with exfoliating bark, cracks, crevices, or hollows. Snags without these characteristics are not considered suitable.

IS THE HABITAT SUITABLE FOR INDIANA BATS? Potentially but low suitability _____

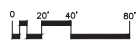
Additional Comments:	Low habitat suitability due to relatively disconnected nature of forested hedge rows within the Project Site, lack of trees with exfoliating bark, and limited number of suitable snags.
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Attach aerial photo of project site with all forested areas labeled and a general description of the habitat

Photographic Documentation: habitat shots at edge and interior from multiple locations; understory/midstory/canopy; examples of potential suitable snags and live trees; water sources



LANDSCAPE MITIGATION PLAN



Planting Schedule

City	Code	Botanical Name	Common Name	Type	Size	Spec	Notes
7	ARRS	ACER rubrum 'Red Sunset'	Red Sunset Maple	Large Shade Tree	2' cal	B&B	
2	CO	CELTIS occidentalis	Hackberry	Large Shade Tree	2' cal	B&B	
7	QA	QUERCUS alba	White Oak	Large Shade Tree	2.5' cal	B&B	
8	QM	QUERCUS macrocarpa	Bur Oak	Large Shade Tree	2.5' cal	B&B	

City	Code	Botanical Name	Common Name	Type	Size	Spec	Notes
7	AB	ABIES balsamea	Balsam Fir	Large Evergreen Tree	6' ht	B&B	
18	PG	PICEA glauca	White Spruce	Large Evergreen Tree	7' ht	B&B	
48	PS	PNUS strobus	White Pine	Large Evergreen Tree	6' ht	B&B	

60% PLAN
REVISED
11/06/2019

300 South Jackson Street
Suite 430
Denver, Colorado 80209 USA
+1 303 388-6500
www.B&WArchitecture.com

Landscape Architects
T.J. BOYLE ASSOCIATES

VELCO New Haven
Operations Facility

New Haven, Vermont 05742

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Project No. 195601783

Drawn By: DA

Checked By: MB

Issue Schedule	Description	Date

Revisions		
#	Description	Date

LANDSCAPE MITIGATION PLAN

L-200